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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,733	07/13/2001	Mario Ignagni	018028-245	9345

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EXAMINER

DESTA, ELIAS

ART UNIT PAPER NUMBER

2857

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,733

Applicant(s)

IGNAGNI ET AL.

Examiner

Elias Desta

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. - See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Detailed Action

Claim rejection – 35 U.S.C. 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as anticipated by Hayashida et al. (U.S. Patent 4,931,982).

In reference to claims 1 and 9: Hayashida et al. teaches a measurement system (see Hayashida et al., abstract). The system includes:

- A stationary array of sensors at a first location to produce a first array of measurement outputs (see Hayashida et al., Fig. 1, Gauges 28 and 29);
- A scanning sensor at a second location to produce a second array of measurement outputs (see Hayashida et al., Fig. 13, scanning type gauge 6); and
- Means for synthesizing an array of measurement outputs (see Hayashida et al., column 7, lines 10-57 and outputs from thickness gauge 28 and 29 as noted above) by fusing the first and second array of measurement

outputs (see Hayashida et al., Fig. 1, which has both transverse and longitudinal dimensional outputs or inputs to the CPU)

With regard to claims 2 and 10: as noted above in claims 1 and 9, Hayashida et al. further teaches that the stationary (see Hayashida et al., Fig. 1, gauges 28 and 29) and the scanning (measurements from Fig. 13, gauge 6) are compared and reconciled (error signals help correcting the desired outputs) so that the measurements made by the plurality of sensors (gauges) are attributed to the same point on material that is being measured.

With regard to claims 3 and 11: as noted above in claims 1 and 9, Hayashida et al. further includes:

- Time stamp information (see Hayashida et al., Fig. 3);
- Cross direction coordinates (see Hayashida et al., Fig. 2, Y-Y coordinate);
- Machine direction coordinate (see Hayashida et al., Fig. 13, thickness scanning gauge in the longitudinal direction); and
- Hayashida et al. provides a means to compute the precise thickness distribution of the sheet material after the process of sheet forming process by considering successive time measurement. Hence, it is inherent to say that the system has to have some sort of odometer with the scanning method (see Hayashida et al., in Fig. 13, gauge 6) in order

to identify the thickness irregularity and make the appropriate correction if necessary.

With regard to claims 4, 5, 6, 12, 13, and 14: as noted above in claims 1 and 9, Hayashida et al. further teaches that the synthetic (estimate) measurement is provided by computing an offset using a recursive least square algorithm because the system uses a Kalman filter algorithm to carry out the adjustment of the thickness of the web based on the error signal generated (see Hayashida et al., column 5, line 3 to column 6, line 66).

With regard to claims 7, 8, 15 and 16: as noted above in claims 1, 5, 9 and 13: Hayashida et al. further teaches that the Kalman filter output data is used to compensate for the temporal variations in the biases of an array (vector) of the stationary sensors (gauges) (see Hayashida et al., column 6, line 58 to column 7, line 37). Further the Kalman filter helps to realize an offset compensation for the sensor (gauge) measurement change (drift) is calculated (see Hayashida et al., column 8, lines 45-59).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

- Meinecke et al. (U.S. Patent 6,526,369) teaches apparatus and process for a cross direction profile of material web.
- Deguchi (IEEE Article, "An Algebraic Framework for Fusing Geometric Constraints of Vision and Range Sensor Data") teaches a new framework for fusing multiple geometric sensor outputs to reconstruct 3-Dimensional target shapes.
- Davis et al. (U.S. Patent 6,091,361) teaches method and apparatus for joint space-time array signal processing.
- Shakespeare et al. (U.S. Patent 6,491,792) teaches apparatus for controlling a head box in a paper machine.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (703)-305-3840. The examiner can normally be reached on M-Thu (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and (703)-308-5841 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta
Examiner
Art Unit 2857

-ed

October 8, 2003



MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800